



1444 9th Street  
Santa Monica CA 90401

ph 310 451 1550  
fax 310 496 1902

info@healthebay.org  
www.healthebay.org

June 17, 2009

Ms. Tracy Egoscue  
Executive Officer  
Los Angeles Regional Water Quality Control Board  
320 West Fourth Street, Suite 200  
Los Angeles, CA 90013

**Re: Los Angeles Region Integrated Clean Water Act Section 305(b) Report and Section 303(d) List of Impaired Waters 2008 Update dated April 2009**

Dear Ms. Egoscue:

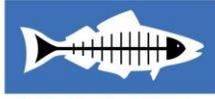
Heal the Bay hereby submits the following comments regarding the Los Angeles Regional Water Quality Control Board's ("Regional Board's" or "Board's") proposed update to the CWA §303(d) list of impaired waters (the "2008 List" or "303(d) List") as presented in the Draft Staff Report and Appendices ("Staff Report"). We appreciate the opportunity to provide comments.

Heal the Bay supports the proposed addition of 66 waterbody-pollutant segments in the Los Angeles Region (Region 4) to the 2008 List. Specifically, we strongly support the addition of invasive species listings for numerous waterbodies in the Malibu Creek Watershed and indicator bacteria listings at several impacted beaches. Regional Board staff correctly identified a negative trend in water quality in association with the proliferation of invasive species (specifically New Zealand Mudsnaills) and the associated degradation of the Aquatic Life Support core beneficial use. In the case of the proposed indicator bacteria listings, these listings are critical as beach bacteria water quality standards are clearly not being met and public health is at risk.

However, we have numerous specific concerns regarding some of the 22 proposed delistings in this region and a few of the decisions to *not* list a waterbody-pollutant combination based on readily available data. Specifically, we are very concerned that Index of Biological Integrity scores and toxicity data were not appropriately evaluated by staff. We also have concerns with some of the evaluation criteria used in the Staff Report. These concerns and other as outlined below.

**I. Data Evaluation Criteria**

**A. Index of Biological Integrity (IBI) Scores Should be Considered in the Listing/Delisting Process.**



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During the public solicitation of water quality data and information for the 2008 public comment period, Heal the Bay submitted seven Index of Biological Integrity (“IBI”) data sets from multiple sources.<sup>1</sup> As described below, these data sets provided sufficient information to necessitate listings for “biological community impairment.” However, there is no mention of any evaluation of these data in the Staff Report and no proposed new listings were made for biological community impairment in the Region. It is critical that these data not be overlooked and that IBI scores are used as a line of evidence in listing/delisting decisions. IBI scores are the best available data to make listing decisions for biological community impairment in streams and rivers.

The diversity and sensitivity of the various species within a stream environment are important indicators of stream health. For instance, healthy communities tend to have a diverse set of invertebrate species, while degraded communities often have fewer sensitive species and a higher proportion of hardy, pollution tolerant species. Based on these principles, an index of biological integrity focuses on specific metrics to provide a comprehensive measure of stream health.

The California Department of Fish and Game (“CDFG”) developed the Index of Biological Integrity in 2002 for the San Diego Region and adapted the methodology to all of southern California in 2005.<sup>2</sup> The IBI provides a quantitative means of evaluating the biotic conditions of a waterbody by analyzing seven metrics, including the number of different species present from the mayfly (*Ephemeroptera*), stonefly (*Plecoptera*) and caddisfly (*Trichoptera*) families and the number of different beetle species present.<sup>3</sup> The metrics are evaluated at a specific site and then converted to a score between 0 and 100 (zero being the worst case scenario). The study’s authors chose two standard deviations below the mean reference site score to develop the impairment threshold. An IBI score of 39 is established as the boundary between “fair” and “poor” biological conditions, and a score of 20 is the division between “poor” and “very poor” biological conditions.<sup>4</sup>

This is relevant because readily available IBI score data indicate biological community impairment in numerous stream reaches located in Region 4. Specifically, water segments with IBI data in the poor and very poor ranges meet the listing factors in sections 3.9 and 3.11 of the Listing Policy. Inherently, the IBI scoring system compares monitoring site conditions to reference sites. Thus, in accordance with Section 3.9, the IBI data indicate significant degradation in biological populations and/or communities as compared to reference sites. In addition, one sample is sufficient for considering IBI scores due to the extensive sampling protocol used in the IBI process, which takes into account site variability and is designed to

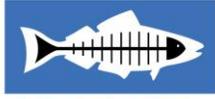
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<sup>1</sup> See Heal the Bay submission dated February 27, 2007.

<sup>2</sup> Ode, P.R., A.C. Rehn and J.T. May., A Quantitative Tool for Assessing the Integrity of Southern Coastal California Streams, *Environmental Management*. 35:493-504 (2005).

<sup>3</sup> *Id.*

<sup>4</sup> *Id.*



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combat sampling errors.<sup>5</sup> In essence, one IBI score is really multiple samples within a creek run. In other words, the Board does not need to use the Listing Policy's binomial distribution table to correct for these issues because the sampling methods are so rigorous.

Also, IBI scores can and should be evaluated using the situation-specific weight of evidence approach. Section 3.11 of the Listing Policy states that "if the weight of evidence indicates non-attainment [of water quality standards], the water segment shall be placed on the section 303(d) list." Listing Policy at 8. The IBI scores should be weighed heavily in conducting such an analysis. Water quality standards and beneficial uses are not being attained in waterbodies with an IBI score less than 39.

In sum, IBI data compiled and submitted by Heal the Bay in February 2007 are readily available and qualify as applicable listing factors in Sections 3.9 and 3.11 of the Listing Policy. Moreover, the State Board should support the IBI methodology developed by its sister agency, CDFG, and include these quantitative data in the listing analysis.

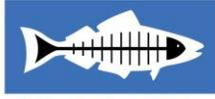
#### **B. The Regional Board Should Consider Listing for "biostimulatory substances" During the Current 2008 Listing Cycle.**

As acknowledged in the Staff Report, the Basin Plan's "nitrogen water quality objective does not protect waterbodies from impairments related to biostimulatory substances and eutrophication." Staff Report at 10. Thus, staff proposes to include waterbodies on the 303(d) List for biostimulatory substances "when both nutrient concentrations and one or more biological response indicators are at levels which characterize eutrophic conditions and/or beneficial uses of the waterbody are impaired." Staff Report at 11. We strongly support this approach and Tables 3.1 and 3.2 of the Staff Report which present various nutrient concentrations and associated biological response indicator criteria limits. Specifically, the Tables present thresholds that are representative of the concentrations at which one sees biostimulatory impacts in the Region. Criteria such as these are long overdue, as eutrophication and nutrient enrichment is one of the biggest water quality issues facing California and the Nation, and should be utilized in current 303(d) listing decisions.

Although the Staff Report outlines these recommendations for biostimulatory substances listings, the Regional Board fails to take any action on these pollutants during the current 2008 listing cycle. "In future updates, Regional Board staff is considering categorizing these impairments all as 'biostimulatory substances' using a Los Angeles Region specific, nutrient concentration/biological response method as described below. In this 2008 list update, however, no "biostimulatory substances" impairments have been included." Staff Report at 10.

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<sup>5</sup> Specifically, the study looks at a minimum linear area of 150 meters having at least 5 riffles. Within this area, the sampler randomly selects 3 out of 5 riffles where the transects will be taken. Within the 3 riffles, the samples are taken from three transects per riffle. A transect is comprised of three 1ft x 2 ft x 6 in deep samples within the randomly selected location on the riffle. Of note, the riffle habitat is the most productive habitat and therefore is the most conservative for documenting degradation of streams.



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It is inappropriate for the Regional Board to delay these critical listings to the next listing cycle. Thus, we urge the Regional Board to evaluate the current data sets using the criteria outlined in Tables 3.1 and 3.2.

### **C. The Regional Board Should Use a Rolling 30 Day Geometric Mean when Evaluating Indicator Bacteria Impairments.**

The Staff Report states that when evaluating exceedances of bacteria limits, "...a calendar month approach as opposed to a rolling 30 day sample approach was used to assess geometric mean to maintain sample independence." Staff Report at 8. In other words, only one geomean was calculated per month as opposed to the four or five results one would produce when using a rolling calculation. Using a static time-frame like a calendar month to assess a very dynamic system is completely inappropriate, statistically unsound, and is not protective of public health. In fact, the state's Ocean Plan requires all indicator bacteria monitoring programs to meet beach water quality standards based on the 30 day rolling geometric mean. The Regional Board fails to provide any sound justification for taking a different approach and does not discuss how this could possibly be statistically superior to and more protective of public health than a rolling average when dealing with indicator bacteria. The end result of this approach will be far fewer beaches listed, far fewer TMDL violations, and far more beachgoer illness. Thus, we urge the Regional Board to evaluate indicator bacteria data using the rolling 30 day geometric mean.

### **D. The Methodology for Listing Beaches When Only AB 411 Data Exist Should be Clarified.**

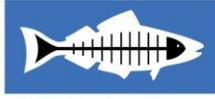
The Staff Report states that "if [beach] water quality monitoring was conducted April 1 through October 31 only, a four percent exceedance percentage shall be used." The Staff Report continues to say that for delisting purposes, "A 19% exceedance percentage was used for water quality monitoring conducted April 1 through October 31...." Staff Report at 7. After talking to staff, it became clear that the provided exceedance percentages are used as the null hypothesis for the binomial distribution in the Listing Policy. This should be clarified within the Staff Report as it is not obvious as currently written.

### **E. Toxicity Data from Publically Owed Treatment Works ("POTWs") Should Be Considered for the 2008 List and in Future 303(d) Listing Cycles.**

In January 2009, Heal the Bay released a report entitled *License to Kill*. During the eight and a half year study time period (2000-2008), among the 42 dischargers, there were there were 408 chronic and 64 acute toxicity exceedances among all receiving water testing stations.<sup>6</sup> Clearly

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<sup>6</sup> Of note, in the Report an "exceedance" is a test result of 1 TUc or greater.



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beneficial uses are not being maintained in many of these waterbodies. Although this report was completed and submitted to Regional Board after the Regional Board's data submission deadline, these toxicity data are readily available to the Regional Board in discharger monitoring report submittals. However, there are only a few new proposed toxicity listings, and only one listing appears to use POTW monitoring data. It is unclear from the Staff Report if any other POTW toxicity data were assessed. We urge the Regional Board to review these data for 2008 listing decisions.

## **II. Proposed Delistings**

### **A. The Los Angeles Harbor – Inner Cabrillo Beach Area Should Not be Delisted for Copper Impairment.**

The Staff Report states that “[t]wo of 16 samples exceed the effects range median for copper for surface sediment samples and this exceeds the allowable frequency....However, current conditions have changed due to the new shallow water habitat created in Cabrillo Beach area and *may no longer* be negatively impacted due to copper.” Emphasis added. This reasoning for a delisting decision is inappropriate for several reasons.

First, the shallow water habitat did not cap the entire Cabrillo area, so some sediments may still be contaminated with high copper concentrations. Also there are still large sources of copper (namely boat paint) to the waterbody that have not been adequately addressed. Finally, burying a pollutant does not necessarily indicate that the pollutant will stop impacting beneficial uses. For example, species such as ghost shrimp and spoon worms go down a meter or more into the sediments. Thus, buried contaminated sediments can impact the benthic community. Also sediments can be dynamic and can move and be buried due to a single storm event. By stating that the waterbody “*may no longer* be negatively impacted due to copper”, the Regional Board appears to concur that the impacts are unknown. Delisting cannot occur without extensive data supporting the waterbody-pollutant removal. Thus, copper should remain on the 303(d) list for Los Angeles Harbor – Inner Cabrillo Beach Area until such a time new data is provided to justify delisting.

### **B. Ballona Creek Estuary Should be Listed for Silver (sediment).**

Staff asserts that silver sediment data were incorrectly applied to Ballona Creek, and the samples were actually collected in the Ballona Estuary. If this is actually true, it is unclear why staff did not propose that the Ballona Estuary be listed as impaired for silver due to the alleged mix-up. The samples came from either the Creek or the Estuary. So one or both are impaired. The State Board cannot delist this pollutant in the Creek on the basis of mis-location without then adding silver to the list for the Estuary if that is where the data was taken. Thus we urge the Regional Board to make this correction.



### **C. The Regional Board Should Clarify the Coyote Creek- Zinc Delisting Proposal.**

That Staff Report states that for zinc in Coyote Creek “The USEPA final decision was to not delist this water body-pollutant combination from the section 303(d) list for 2006, based on the information contained in the lines of evidence.” However, it is unclear from the information provided by the Regional Board in the Staff Report why their proposal for the 2008 303(d) List differs from the previous USEPA decision. Are there new data available? The Regional Board should clarify the reasoning for this decision.

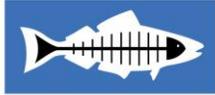
### **D. The Regional Board Should Not Delist Los Angeles River Estuary (Queensway Bay) – Lead (sediment) and zinc (sediment).**

Staff proposes to delist the current lead and zinc sediment impairments listings for the Los Angeles River Estuary (Queensway Bay) because the available data includes surface and core sediment samples. How extensive were the sediment data spatially and temporally? How deep were the core samples? It is often important to examine the top layer and deeper layers of sediment in order to get sufficient insight on the ecological health of the water body and to determine if beneficial uses are maintained. Species such as ghost shrimp and spoon worms go down a meter or more into the sediments. Thus, buried sediments can impact the benthic community. Also sediments can be dynamic and can move and be buried due to a single storm event. Clearly, the Regional Board should consider deeper sediments and larger spatial areas in its listing and delisting decisions.

Further the Staff Report states that “[b]ased on the readily available data and information, the weight of evidence **indicates that there is sufficient justification against removing** this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.” This statement appears to be in conflict with the fact sheet header that proposes to delist this waterbody-pollutant combination. We agree with staff’s statement and they should clarify this inconsistency.

### **E. Malibu Lagoon: Benthic Community Effects Should not be Placed in the “Being Addressed” Category.**

The Staff Report indicates that the Malibu Lagoon Benthic Community Effects listing should be moved to the 303(d) list’s “being addressed by action other than TMDL” category. The reasoning provided is that “[t]he Malibu Lagoon Restoration Feasibility Study Final Alternatives Analysis describes restoration measures for Malibu Lagoon. These proposed restoration efforts, if fully implemented, is anticipated to correct the conditions which allow the negative indicator species to thrive.” We are hopeful that the restoration efforts will improve benthic communities; however, it is premature to make this conclusion and move this listing. The



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Malibu Lagoon Restoration efforts have not started and the start date is uncertain because of the budget crisis. In addition, this listing change presumes that the benthic community problems are only a result of the lagoon's configuration and poor tidal flushing, and not any pollutant contribution. While this may be the case, it is simply premature to state this conclusively. Thus, the benthic community effects listing should remain on the main 303(d) List.

#### **F. The Proposed Walnut Creek Wash – Toxicity Delisting Should be Further Justified.**

The Staff Report appears to base the Walnut Creek Wash Toxicity delisting decision on the fact that the majority of exceedances were observed in older samples. Staff concludes that “[f]ive out of 42 samples exhibit toxicity to Ceriodaphnia. However, four toxic results occurred in samples from 1992-93. In between 2003 and 2007, only one of 38 samples exhibited toxicity, thus significant improvements in survival and reproduction endpoints have been observed in the most recent timeframe.... Based on the improving trend in water quality conditions and only one toxic result in the past four years, it is evident that beneficial uses are being supported.” While we understand staff’s reasoning, it appears that this is not a strict interpretation of the Listing Policy and opens the door to future misinterpretations of the Policy. The Staff Report indicates that section 4.6 of the Listing Policy is used for this delisting decision. This section of the Listing Policy states: “Water/Sediment Toxicity or associated water or sediment quality guidelines are not exceeded using the binomial distribution as described in section 4.1.” However by comparing the data to the binomial distribution, it is clear that the delisting should not occur. By only looking at the more recent data, staff is basically saying that the old data does not matter. This could be problematic, especially as tight monitoring budgets in the coming years reduce the amount of available newer data. We discourage the Regional Board from using this line of reasoning for listing/delisting decisions.

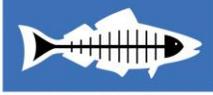
#### **G. Staff Should Clarify Their Intent for the San Pedro Bay – PAH Delisting.**

Staff proposes to delist PAHs in San Pedro Bay. However, there appears to still be some uncertainty about this decision, as the Staff Report appears to ask a question of staff: “zero of 27 surface sediment samples exceeded the *CONFIRM WITH PK* in marine sediment and this meets the allowable frequency....” Emphasis added. Please clarify what staff intends for this listing.

### **III. Conclusion**

In sum for all of the reasons set forth above, we urge the Regional Board to:

- (1) ensure that all readily available Index of Biological Integrity scores are evaluated;



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- (2) evaluate biostimulatory substances data for the current 2008 listing cycle;
- (3) utilize the rolling 30 day geomean for indicator bacteria listing/delisting decisions;
- (4) utilize POTW toxicity data for listing decisions;
- (5) reject the proposed delistings for the waterbody-pollutant combinations discussed above.

If you have any questions, please contact us at 310-451-1500.

Sincerely,

Kirsten James  
Water Quality Director

Mark Gold, D. Env  
President